

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
11 August 2005 (11.08.2005)

PCT

(10) International Publication Number  
**WO 2005/072728 A1**

(51) International Patent Classification<sup>7</sup>: **A61K 31/38**,  
31/381, 31/55, A61P 29/00

(74) Common Representative: **PLIVA-ISTRAZIVACKI IN-  
STITUT D.O.O.**; Pravni i Patentni Poslovi, Prilaz baruna  
Filipovica 29, 10000 Zagreb (HR).

(21) International Application Number:  
PCT/HR2005/000008

(22) International Filing Date: 27 January 2005 (27.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
P20040104A 30 January 2004 (30.01.2004) HR

(71) Applicant (for all designated States except US):  
**PLIVA-ISTRAZIVACKI INSTITUT D.O.O.** [HR/HR];  
Prilaz baruna Filipovica 29, 10000 Zagreb (HR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MERCEP, Mladen**  
[HR/HR]; Majstora Radonje 10, 10000 Zagreb (HR). **MESIC, Milan** [HR/HR]; Slavenskog 8, 10000 Zagreb  
(HR). **PESIC, Dijana** [HR/HR]; Prokljanska 18, 22000  
Sibenik (HR). **OZIMECLANDEK, Ivana** [HR/HR];  
Oroslavska 21, 10000 Zagreb (HR). **TROJKO, Rudolf**  
[HR/HR]; S.Kranjcevic 7, 43000 Bjelovar (HR). **RUP-  
CIC, Renata** [HR/HR]; Nasicka 5, 10000 Zagreb (HR).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: USE OF BENZONAPHTHOAZULENES FOR THE MANUFACTURE OF PHARMACEUTICAL FORMULATIONS  
FOR THE TREATMENT AND PREVENTION OF CENTRAL NERVOUS SYSTEM DISEASES AND DISORDERS

(57) Abstract: The present invention relates to the use of compounds from the group of benzonaphthoazenes and of their phar-  
maceutically acceptable salts and solvates for the manufacture of a pharmaceutical formulation for the treatment and prevention  
of diseases, damages and disorders of the central nervous system (CNS) caused by disorders of the neurochemical equilibrium of  
biogenic amines or other transmitters.



**WO 2005/072728 A1**